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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/030,190

02/04/2002

Dan-Kcun Sung

P21950

8702

7055 7590 07/05/2007
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EXAMINER

PATEL, AJIT

ART UNIT

PAPER NUMBER

2616

NOTIFICATION DATE

DELIVERY MODE

07/05/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
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Office Action Summary

Application No.

10/030,190

Applicant(s)

SUNG ET AL.

Examiner

AJIT G. PATEL

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-34 is/are allowed.
- 6) ☒ Claim(s) 1-31, 35-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

1. Figures 1-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Claims 1-31,35-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim recites a method for performing an orthogonal code hopping multiplexing communication in a band spreading system, however, the body of the claim does not perform such a method.

Regarding claim 35, line 4, coding a channel should be changed to decoding a channel. In line 8, the hopping pattern should be changed to the orthogonal code hopping pattern. There is no correlation between a channel decoder, orthogonal code hopping pattern generator and an orthogonal code generator.

In claim 36, lines 6-7, the recitation "based on orthogonal code hopping" is vague and indefinite since it is not known where the orthogonal code hopping is generated.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12,14-21,28-31,35-37,39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art on pages 2-14 (figs. 1-8) of the specification in view of Dent et al (US Pat. # 5,771,288).

Regarding claim 1, the admitted prior art of fig. 2b discloses a step of performing multiplexing for communication channels from a first communication station to second communication station (256,260 of fig. 2b). The admitted prior art also discloses the code generator (362 of fig. 3a). However, the admitted prior art fails to disclose that the code generator is orthogonal code hopping. Dent et al disclose a multiple access coding for radio communications disclose orthogonal code hopping (lines 7-19, col. 21). Therefore, it would have been obvious to one skilled in the art to use orthogonal code hopping as taught by Dent et al in the system of prior art in order to optimize the process of distinguishing each coded information signal from all the other information signals and noise-related interference.

Regarding claim 2, it is well known in the art to use orthogonal code to distinguish the channels.

Regarding claim 3, Dent et al use orthogonal code hopping pattern (lines 7-19, cpl. 21).

Regarding claim 4, Dent disclose orthogonal code hopping patterns to distinguish the communications channels.

Regarding claims 5,7, it is well known to use Hadamard code or gold code as taught by Dent et al.

Regarding claim 6, it is well known in the art that the orthogonal code is inherently disclose variable spreading factor code.

Regarding claims 8-10, it is well known in the art that the orthogonal code hopping pattern is allocated when the communication starts and when the communication finish, the orthogonal code hopping pattern return back.

Regarding claim 11, the admitted prior art discloses the step of transmitting a command for controlling transmission power using a separate common power control channel (see fig. 2b, power control bit for TCH#1).

Regarding claim 12, the admitted prior art discloses the the common control channel is time-multiplexed (260 of fig. 2b).

Regarding claims 14-21, it is well known in the art that the orthogonal code hopping patterns are generated at random.

Regarding claim 29-31, the admitted prior art discloses a pilot signal is used to initial synchronous gain and tracking of the channels (200 of fig. 2a).

5. Claims 13,22,23-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 32-34 are allowed.
7. Claims 35-44 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIT G. PATEL whose telephone number is 571-272-3140. The examiner can normally be reached on MONDAY- FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AP


Ajit Patel
Primary Examiner